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ARCHAEOLOGICAL EXCAVATIONS OF THE GARDENS AND INTERIOR AREAS
OF HOUSES B AND C OF THE SOUTHEAST ROW HOUSES
FORT MICHLIMACKINAC, MICHIGAN

by

Ruth Ellen Freese

A thesis submitted in partial fulfillment of the
requirements for the degree of Master of Arts in
the Department of Anthropology in the
University of South Florida

August 1981

Major Professor: Robert T. Grange, Jr., Ph.D.

Graduate Council
University of South Florida
Tampa, Florida

CERTIFICATE OF APPROVAL

MASTER'S THESIS

This is to certify that the Master's Thesis of
Ruth Ellen Freese
with a major in the Department of Anthropology
has been approved by the Examining Committee on
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requirements for the Master of Arts Degree.

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ABSTRACT

During the summer of 1980, in conjunction with the Mackinac Island Park Commission, the University of South Florida conducted archaeological excavations at Fort Michilimackinac, Mackinaw City, Michigan. The fort, located at the intersection of Lakes Michigan and Huron, has a rich heritage of both British and French occupation. Fort Michilimackinac, established around 1715, was inhabited by a French garrison until 1760. The garrison's primary purpose was to protect traders and maintain friendly alliance with the local Indians. In 1761, at the conclusion of the French and Indian War, the British assumed control of the upper Great Lakes Region and Fort Michilimackinac. Except for a one-year period, the British continuously occupied the fort until 1781. During their tenure, the British maintained a stringent military posture for defense of the region. With the threat of advancing American rebel forces, the fort was dismantled and moved to nearby Mackinac Island during the winter of 1780/81.

Since the 1950's, the Mackinac Island Park Commission has been engaged in the excavation and reconstruction of Fort Michilimackinac. The excavation accomplished by the University of South Florida was a continuation of this

process. During the past several field sessions, excavation had been conducted in the Powder Magazine and Rue de Babillard areas. The work was done in association with excavations of a series of row houses and garden areas adjacent to the Rue de Babillard. The 1980 investigation continued the previous work in the southeast row house.

The primary objective was to locate the fence and wall ditches within the gardens and house areas of Houses B and C of the southeast row house. Additionally, the artifacts recovered from the excavations were analyzed to provide a basis for cultural interpretations for both the French and British periods.

Although the wall and fence features were not completely excavated due to the end of the field season, archaeological evidence did support their presence. The remaining portions of the features will be excavated during the summer of 1981 and together with the artifact analysis, will assist the park commission in reconstructing both the structures and cultural habitation of the fort.

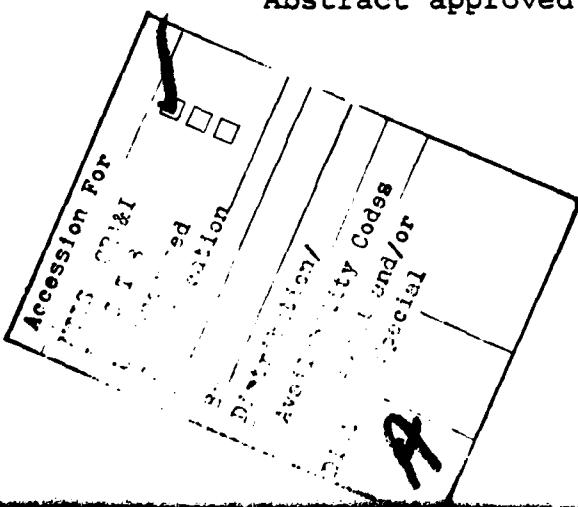
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PREFACE

This paper represents the product of an internship and Master's thesis project completed under the auspices of the University of South Florida and the Mackinac Island Park Commission. The project, under the guidance of Dr. Donald P. Heldman, staff archaeologist for the Park Commission, included the excavation of two units of the southeast row house at Fort Michilimackinac, an historic French and British fort, located in Mackinaw City, Michigan.

My responsibilities in the project included working as the laboratory supervisor and assistant field supervisor at the site. My basic research effort involved the descriptive identification fo the more than 30,000 artifacts recovered from the two units excavated. This thesis, which is a basic descriptive summary of the excavation, associated features and artifact identification, is the result of the research.

INTRODUCTION

In 1980, for the twenty-second consecutive year, the Mackinac Island Park Commission conducted archaeological field work at Fort Michilimackinac, a French and British fort at the southern edge of the Straits of Mackinac in northern Michigan. Under the auspices of the Park Commission, the University of South Florida participated in the 1980 field work. The excavations, directed by Dr. Donald P. Heldman, staff archaeologist for the Mackinac Island Park Commission, were located in the southeast quadrant of the fort within the ruins in an area known as the southeast row house.

The excavation was conducted in the house and garden areas of Houses B and C of the southeast row house. Since earlier excavations had disclosed major portions of the interiors of the houses, excavation was accomplished primarily within the garden areas.

In association with the previous archaeological excavations, historic documentation established the presence and position of the row house. The 1749 engineering map drawn by Michel Chartier de Lotbiniere pinpointed the location of the row house during the French occupation. A second map, drawn by Perkins Magra in 1766, although not as precise as the 1749 map, indicates changes made in the fort since the earlier map.

The row house, originally built and occupied by the French, was later occupied by the British in its original state (Heldman 1977). However, sometime during the British tenure, the row house was demolished and rebuilt. The reconstruction was so thorough that little evidence remained of the earlier French architecture and accompanying deposits (Heldman 1977:2). Traces do exist, however, as illustrated through both the 1976 and 1980 excavations.

This thesis is a culmination of the work involved in the excavation of the areas in and adjacent to Houses B and C, and also the identification and analysis of the more than 30,000 artifacts recovered during the 1980 excavations. The identification of the artifacts is a product of the research not included in this thesis. Only diagnostic types are included.

The goal of this thesis is to examine the 1980 excavations and provide evidence of the location of wall and fence ditches within the house and garden areas. Additionally, wherever possible, functional interpretations of any other feature associated with the British and French occupations will be made. Several of the features were not completely excavated in 1980 making final interpretation impossible. Finally, this thesis will examine the diagnostic artifacts recovered, in order to provide functional interpretations of the units excavated as well as occupational and chronological differences.

Chapter I

HISTORY OF FORT MICHILIMACKINAC

Fort Michilimackinac, located at the northernmost tip of the lower peninsula of the State of Michigan, was occupied during the period 1715 to 1781. The fort, the second of three built in the immediate area, was first established by the French around 1715, who occupied it until 1761. From 1761 until its relocation in 1781, the fort was controlled by the British. Its position at the lower edge of the Straits of Mackinac and at the intersection of Lakes Michigan and Huron provided a strategic location for both fur trade and military activities.

Historic references do not pinpoint the exact date Fort Michilimackinac was built and initially occupied. Maxwell and Binford (1961:10) make reference to letters from a Monsieur de Lignery, a captain in the French army dispatched by the Crown to secure the alliance of local Indians, to the territorial government of New France in which he discussed the establishment of the fort. Maxwell and Binford (1961:10) observe:

It appears likely that sometime between 1715 and 1720, de Lignery with several hundred men on his hands waiting for supplies from Montreal, put them to work in the time-honored military tradition by building a stockaded fort on the other side of the river, meaning on the south shore of the Straits.

Maxwell and Binford (1961:11-12) also cite an anonymous map believed to date to 1717. The map:

shows a stockade, square, with square bastions, on the south side of the Straits, as well as a fort and mission on the north side of the Straits. The caption, indicating the fort on the south side of the Straits, states that the former fort (at St. Ignace) has been abandoned; that the fort on the south side of the Straits has a commandant, a few settlers, and even some French women, and that in 1716, about 600 coureurs-de-bois were gathered there during trading time.

A third reference indicates 1717 as the year the fort was founded. This specific date was mentioned in a letter dated 1767 by John Porteous, an English trader (Bald 1938:12 in Stone 1974). The letter states:

Michilimackinac is Situate (sic) on a large cap (sic) which forms the southern side of the Straits between the Lakes Huron and Michigan, has Lake Huron on the E. and S.E., and on the S. and W., Lake Michigan Lat., 46°18', Long. 85.* This post was first established upon an island on the E. entrance of the Straits, from thence moved to the east point of the northern cape, and afterwards moved westwards, about 2 miles, about the middle of the Straits; and in the year 1717, by request of the Ottawas whose village then stood here, was again moved over to where it now stands to protect them from some of the nations they were then at war with.

Thus, according to the available historic documentation, the fort was occupied by at least 1716 or 1717.

There were several factors for the establishment of Fort Michilimackinac. In addition to the fort's strategic location in the Great Lakes' area, Lyle Stone (1974:8) discusses other reasons, several of which have been previously mentioned. Stone states that:

With the close of the Queen Anne's War in 1713, finances were once again available to support renewed trading interests and military control of the Upper Great Lakes. Although anticipated, Fox (Fox War of 1716) conflicts gave impetus to the construction of the fort, other long-term reasons were extremely relevant to its establishment. A post was necessary at the Straits to discourage competition from the Hudson's Bay Company to the north, to control the activity of the unlicensed French traders (the coureurs-de-bois), to secure the alliance of the local Indians, and to serve as a focal of anticipated fur-trading expeditions.

During the period, 1715 - 1760, the French were involved in little military activity. Most activity centered on protection of the fur-trade industry and promoting diplomatic relations with local Indians (Stone 1967:2). The only military activity involved infrequent skirmishes with British forces. Resources of local Ojibwa and Ottawa tribes were solicited for these skirmishes.

During the French occupation, the fort was enlarged three times. A precise map of the fort was drawn during this period by Michel Chartier de Lotbiniere. The map, drawn in 1749, provides an excellent description of the fort at the middle of the French tenure. Additionally, Lothiniere attached a written record to the document which discusses some aspects of French life at the fort, such as the number of houses and names of occupants. In this documentation, Lotbiniere discusses the changes that were made at Fort Michilimackinac during the French period. Lotbiniere's map and written record were not discovered until the mid-1970s, and have proved to be invaluable to both archaeological and historical research.

In 1761, the fort became more of a military oriented post. The end of the French and Indian War in 1760 brought control of the Upper Great Lakes to the British. British forces of the 80th Regiment assumed control of the fort in September 1761 (Stone 1974).

The Articles of Capitulation agreed to by the French and British at the end of the war were especially favorable to the French inhabitants remaining at Fort Michilimackinac. The British were forced to rent troop quarters from the French since the French had been allowed to retain possession of their property (Stone 1974).

Although the population of the fort increased during the British tenure, the perimeter of the fort remained the same, thereby forcing the building of cabins outside of the fort confines. Three maps, drawn during the early British occupation, documented both the interior and exterior. None was as precise as the Lotbiniere map, nor as helpful as the 1749 map. They do, however, provide approximate locations of the structures that existed between 1761 and 1765. The three maps include: the Magra Map of 1766; the Nordberg Map of 1769; and the Crown Collection Map of 1765. The Magra Map proved to be the most useful for research since it indicates the changes made since the earlier Lotbiniere map.

Along with the increase in population, Fort Michilimackinac experienced an increase in the fur trade during the British occupation. The growth may be partially a result of the removal of monopolies and trade restrictions by the British

(Stone 1974). The British strictly enforced a licensing system which permitted trading at one of five licensed posts. Fort Michilimackinac was designated as one of the five fur trading posts.

The fort in early 1763 has been described by William Warren (1957:201):

Connected with it was an area of two acres, inclosed with cedar wood pickets, and extending on one side so near to the water's edge that a western wind always drew the waves against the foot of the stockade. There were about thirty houses within the limits, inhabited by about the same number of families. The only ordinance on the bastions were two small brass pieces. The garrison numbered between ninety and one hundred.

Henry Alexander supplements this account by attributing, as residents, ninety privates, two subalterns and the commandant, and the four English merchants to the fort (Armour 1971:45).

Both accounts exaggerated the size of the garrison. It actually only numbered thirty-five (Stone 1974:10 and Armour 1971:45). The exaggeration may have been caused by including traders and civilian residents in the garrison count.

This somewhat peaceful British occupation ended abruptly on 2 June 1763, after only three years of control. Fort Michilimackinac was attacked and captured as part of the Pontiac uprising (Stone 1974; Maxwell and Binford 1961; Armour 1971; Warren 1957). Spurred on by Pontiac's continued war against the British, a group of local Ojibwa succeeded in overpowering the garrison through a game of Baggatiway.

Alexander Henry, a witness to the attack, described the game (Armour 1971:49):

Baggatiway, called by the Canadians le jeu de la crosse, is played with a bat and ball. The bat is about four feet in length, curved, and terminating in a sort of racket. Two posts are planted in the ground at a considerable distance from each other, as a mile or more. Each party has its post, and the game consists in throwing the ball up to the post of the adversary. The ball, at the beginning, is placed in the middle of the course and each party endeavors as well to throw the ball out of the direction of its own post as into that of the adversary's.

The Ojibwa had planned the attack for the day of the King's birthday knowing that the British would be enjoying a relaxing day of entertainment. On several occasions, the Indians "lost" a ball over the fort's palisade. Becoming accustomed to this, the British felt no alarm as the ball once again was thrown over the stockade. Taking the opportunity, the Indians rushed the open gates. The Ojibwa women had been concealing weapons under their blankets and at the beginning of the surge supplied these weapons to the warriors. Taken completely by surprise, 21 of the 35 British soldiers and one British trader were killed (Stone 1974). The survivors were eventually released by the nearby Ottawa.

Fort Michilimackinac was not again occupied by the British until 1764, one year later. The fort was initially under control of the 17th Regiment, and subsequently by the 60th, 10th, King's 8th, and 84th Regiments. The population in and around the fort continued to grow. John Askin, a resident trader, noted in 1778 that: there is near to one hundred

houses in the Subarbs (sic) (Quaife 1928:69, in Stone 1974:11).

The Revolutionary War had significant effects on Fort Michilimackinac. Although the fort was directly involved with the fighting, the fear of a possible attack by George Rogers Clark and rebel forces brought immediate reaction from Major Arent S. DePeyster, the fort commander. He had the deteriorating stockade repaired, constructed a stockade around the soldiers' barracks, and leveled the sand dunes to the west of the fort (Stone 1974). The defense posture at the fort had deteriorated still further by the time Lieutenant Governor Patrick Sinclair arrived in 1779 to relieve DePeyster.

Sinclair learned that (Armour and Widder 1978:119):

The fort was dangerously exposed and virtually defenseless. There were only 403 six-pound iron balls for the fort's cannon, and 129 empty shells for the 4-2/5 inch brass coehorn mortar. The additional ammunition was unserviceable. As they (Sinclair and DePeyster) inspected the fort, other serious shortages were pointed out. The subterranean powder magazine near the southeast bastion contained only 16-1/2 barrels of powder belonging to the Crown. Little iron and steel, and very few entrenching tools were to be found in the Engineer's storehouse. Also lacking were skilled artisans such as a blacksmith and ship's carpenter.

Sinclair determined that immediate action was necessary to preserve the defense of the fort. Since adequate defense of the fort was virtually impossible at its present location, Sinclair decided that the fort should be relocated to nearby Mackinac Island. The island provided a more secure and defensible position. During the winter of 1780-81, portions of

Fort Michilimackinac were dismantled and transported by boat, when the Straits were open, and over the ice to Mackinac Island. The remainder of the fort deteriorated and was eventually covered by wind-blown beach sand (Stone 1967; 1974:12).

In 1857, the village of Mackinaw City set aside the land as a local park. The land was transferred to the State of Michigan in 1904. Since that time, the land, which included the site of the fort and French village, has been administered by the Mackinac Island Park Commission. Until access to the park was limited in the 1930s (Stone 1974:12), the area was frequented by picknickers, and those seeking "souvenirs."

In 1932, Chris Schneider, the park superintendent, undertook limited excavations (Stone 1967; 1974). By trenching, Schneider was able to determine the late British stockade line. The ca. 1750 to 1781 stockade was then reconstructed on the basis of these excavations (Stone 1974:12). Later work confirmed the position of the east, south, and west stockade lines. The northern stockade line was questionable.

In 1959, the Park Commission undertook action to permanently establish programs for archaeological investigation and historic research. The eventual intent was to completely reconstruct Fort Michilimackinac and all the fort's structures. Archaeological and historical research documents have been continuous since the late 1950s. Since that time, based on the results of the research, eight of the fort's internal structures have been rebuilt.

Chapter II

RESEARCH DESIGN

The research design for the excavation at Fort Michilimackinac was established in prior field seasons (Heldman 1977, 1978). The primary purpose of the design is to systematically excavate the fort in order to provide precise data for the reconstruction of the fort and the interpretation of 18th century life within the fort.

Specifically, the 1980 excavation was linked to the adjacent excavation. The research design for the 1976 field season sought to locate, outline, and interpret whatever survived of House 1 of the south, southeast row house, and of Houses A and B of the southeast rowhouse (Heldman 1977:8). Continuing with the described research design, the remainder of House B and House C of the southeast rowhouses, plus their adjoining garden areas would be excavated in 1980.

The two units excavated in the established grid system were known as 230R110 and 240R110. Unit 230R110 covered both the south wall of Houses B and C and deposits within each, and the gardens of both houses (Heldman 1980a). Unit 240R110 included both the garden fence between Houses B and C, and the southernmost garden fence behind the rowhouse (Heldman 1980a).

Hypotheses that relate to what might be found were based on what was known from previous archaeological research on the units surrounding 230R110 and 240R110, and from historic documents (Heldman 1980a). Different hypotheses were made for both the units and projected British and French deposits.

Unit 230R110

British Deposit

For unit 230R110, several hypotheses were developed for the British deposit. They included that: initially a portion of the charred and collapsed palisade (Feature 560) would be found since the row house was destroyed before the palisade; the uppermost garden deposit would be badly disturbed from both the 1781 razing and modern slip-scrape operation; portions of the south wall (Feature 574) of the British period of both Houses B and C would be present, and the interior joist sill (Feature 610) would be found within Houses B and C. It was further hypothesized that: portions of the collapsed and razed superstructure of House B and possibly House C would be present; possibly a door threshold would be found from House B leading into the gardens and finally, British refuse pits would possibly be present.

French Deposit

In the French deposit of 230R110, it was hypothesized that: only a small portion of French deposit might exist below the British deposit; the demolition refuse from the

mid-1760s rebuilding of Houses B and C might be present; the garden deposit would be badly disturbed from the 1760 British rebuilding, and probably a portion of the footing ditch of the original French partition (Feature 613) between Houses B and C would be found. Further hypotheses for the French deposit included: the possibility that part of the original footing ditch of the south wall of Houses B and C would be found, a fence footing ditch separating Houses B and C would also be found, and finally, it was possible that French refuse pits would be found.

Unit 240R110

British Deposit

The hypotheses generated for the British deposit of unit 240R110 were similar to those in 230R110 in that a portion of the destroyed palisade might be present in the uppermost levels; the garden deposit would be badly disturbed, and British refuse pits might be present. Additionally, it was hypothesized that a segment of the fence footing ditch between the gardens would be present, and finally, a portion of the southernmost garden fence (Feature 557) would be present.

French Deposit

Similarly, hypotheses devised for the French deposit of 230R110 are the same as for 240R110. It was postulated that: the garden deposit would probably be badly disturbed from the mid-1760s rebuilding of the southeast row house; refuse from

the rebuilding of the houses possibly would be found; a portion of the original French footing ditch separating the gardens would be found, and finally, it was thought unlikely that French refuse pits would be found. Unique to 240R110 was the possibility of finding the original remnants of the footing ditch at the southernmost end of the French garden.

Functional Usage

In addition to the possible features found in units 230R110 and 240R110, functional usage within the units was hypothesized. According to the 1749 Lotbiniere map, House B was occupied by a Mr. Douaire, and House C by a Mr. Parent (Heldman 1980). Based on prior archaeological and historical investigation, both Mr. Douaire and Mr. Parent were probably economically poor Indian traders. Houses A and B yielded large quantities of trade items in the French deposit (Heldman 1977:84) which further supports the trader hypothesis. Also, the possibility that the traders were of a lower economic and social class may be enhanced by their proximity to the powder magazine. Powder magazines had the tendency to explode at any given time, thus making proximal living hazardous.

Sometime during the British occupation, it was hypothesized that British soldiers lived in Houses B and C. Artifact evidence so far supports this premise. The quantity of British artifacts over those of the French suggests a higher social and economic status for the occupants. Also, a variety of military buttons were found in Houses A and B.

They included 60th, 10th, and 8th Regimental buttons. All three regiments were present on separate occasions during the British occupation.

Late in the British occupation, plausibly, soldiers lived in the houses in order to guard the powder magazine. Advancing rebel forces caused alarm with the British, and more strenuous security precautions were made, one of which was moving the entrance of the powder magazine to the east of House A (Heldman 1980a). The move would facilitate the soldiers' ability to monitor the entrance.

The significance of the hypotheses for both the archaeological and functional interpretations will be discussed in Chapter IV. Further, interpretation of features as they relate to the hypotheses will be covered in Chapter V.

Chapter III

FIELD EXCAVATION TECHNIQUES

General Excavation Techniques

A standard method of excavation has been employed at Fort Michilimackinac since the implementation of continuous archaeological investigation. Techniques have varied, but the basic method of excavation has remained the same since 1959 when work was begun by Moreau S. Maxwell, Curator of Anthropology at the Michigan State University Museum.

During his first field season, Maxwell set up the grid system for the site. Maxwell (Maxwell and Binford 1951:19) used the middle angles of the north and south walls of the rebuilt stockade for the center of the grid line. The center lies several degrees west of true north, and therefore runs approximately north-south and east-west. The grid is composed of ten-foot squares running from 0 to 360 (north to south). Squares on either side of the centerline are numbered in ten-foot increments to the right of the centerline. Squares are numbered, for example, 230R110, 230R120, 230R130, etc.

Initially, datum levels were taken against the sea level elevation of Lake Michigan. Maxwell extended his survey

beyond the fort to the edge of Lake Michigan, and then adjusted levels to the sea level elevation of the lake as recorded on that day in the Coast Guard Station in Cheboygan, Michigan (Maxwell and Binford 1961:19). In 1968, the grid system was reestablished through transit readings and permanent bench marks were established (Heldman 1977:9; Heldman and Minnerly 1971: Figure 8). Datum depths have been taken from those bench marks since that time.

More recent work conducted by Donald Heldman has included refined controls (Heldman 1977; 1978). Vertical control of the excavation was regulated by a combination of arbitrary and stratigraphic levels. Levels are arbitrarily excavated in one-tenth of a foot increments. Additionally, each separate soil type or feature in the one-tenth of foot levels is excavated and bagged separately. The bottom of each level is mapped and photographed.

Due to the abundance of small artifacts (e.g., seed beads, lead shot and straight pins), all soil is initially screened through quarter-inch mesh screen and then fine-screened through window screen. The fine-screening is accomplished by forcing water from a hose through the soil and window screen.

Specific Excavation Techniques

During the 1980 field season, previously established excavation methods were followed. Work was conducted in

two contiguous ten-foot square units, 230R110 and 240R110. Datum depth for 230R110 was established at 595.360 feet above mean sea level, and for 240R110 at 595.288 feet above mean sea level.

The excavation of these units followed the pattern set up for the overall excavation of the fort. The surface level of sod and sand was removed sui generis. Level 2 was also removed as a single unit since it was a disturbed deposit resulting from leveling the surface of the fort in 1933. In subsequent levels, the two ten-foot square units were divided into 2.5-foot square subunits. Following through on previous Rue de Babillarde excavations, the 16 smaller subunits in each unit allowed for the plotting of artifacts to facilitate the study of activities within the house and garden areas. A total of 13 levels were excavated in unit 230R110, and 15 levels in unit 240R110. Additionally, within the major units, 393 subunits which included 1,234 different soil types or features were excavated, screened, bagged and catalogued separately.

For continuity with previous investigations, all measurements were taken in feet or tenths of feet. Methods of horizontal and vertical controls also remained the same.

Chapter IV

STRATIGRAPHY AND FEATURES

Stratigraphy

The stratigraphy for the 1980 season displayed both similarities and differences when compared to previous excavations (Heldman 1977). The Sod/Sand surface level was dissimilar to all areas of the site (Heldman 1980b). The soil matrix was a Brown-Red Sandy Loam with Stones, and dated after 1933. Normally, throughout the site, the Sod/Sand level was a combination of sod and windblown sand. The depth of level ranged from 0.15 to 0.23 feet below surface level.

Since the stratigraphy of Sod/Sand layer was not the expected, two "windows" were cut into 230R110 to determine the depth of the Black Sandy Loam which started at Level 2. The color change in the soil was slight, but not definitive. The Black Sandy Loam represents a modern disturbance and displays a mixture of artifact types from both the 20th and 18th centuries. The disturbance is a result of "smoothing-out" the ground surface of the fort in 1933. A slip-scrape procedure was used which tended to gouge deeper holes whenever it hit an obstruction. The area was then filled in

with manure and sod. This process provided for the disturbance and artifact mixture. Normally, throughout both units, the Black Sandy Loam disturbance varied in depth from about 0.15 to approximately 0.75 feet. At one point, however, the disturbance extended down to 1.2 feet in the northern half of 230R110. Since the excavation went down to only 1.9 feet in that area, the larger portion of subunits eight through sixteen in 230R110 yielded disturbed material. The remaining 24 units, however, allowed recovery of some semblance of the expected stratigraphy.

The Black Sandy Loam became mottled in Level 4, and appeared in only a quarter of the subunits. A more defined Brown Sandy Loam was apparent in the remaining subunits. The Brown Sandy Loam is equated to either an occupation deposit of the British or the late British demolition activities (Heldman 1980b).

Levels 5 through 8 were in primarily Brown Sandy Loam or Brown Sandy Loam with Clay and Stones. The Brown Sandy Loam was dominant but did appear in numerous combinations with lighter soils and varied matrices. In the northern half of unit 230R110 in subunits 8 through 16, the supposed 1781 demolition level still yielded numerous modern artifacts which indicated that portions of the unit were badly disturbed.

Levels 8 through 25 in 240R110 provided a variety of soil matrices. Prominently, they contained Brown Sandy Loam and variations of Brown Sandy Loam. The varied matrices were

most abundant in 230R110, but both units included variations of Brown Sandy Loam, Humic Loam, Brown Sand and Loam, Tan Sand, Grey Sand, Gold Sand and Natural Beach. The numerous combinations found are attributable to colonial disturbances.

Much of the colonial disturbance in both units may be connected to the 1781 razing of the fort. Tentative cultural and chronological context were assigned to the soil types during the 1980 field season, based on prior excavation knowledge. They are from most recent to earliest (Heldman 1980b):

<u>Projected Dates</u>	<u>Description</u>
1933 - Present	Sod/Sand level
1933	Black Sand Loam Disturbance resulting from 1933 "leveling" of the fort's surface.
1781	Brown Sandy Loam with Clay and Stones from the demolition of the fort.
1761 - 1781	"Pure" Brown Sandy Loam from the British occupation.
1761 - 1767 or 68	Brown/Grey Sand from the British occupation.
1730s - 1761	Grey Sand from the French occupation.
1730s	Charcoal and Algoma Beach (Natural Beach Sand) indicative of the French beach clearing.

To date, there is no evidence to dispute the cultural chronology, although this may change with future investigations in the fort.

Levels 12 and 13 in 230R110, and Level 15 in 240R110 provided Algoma Beach Sand with intruded features. Excavations were halted at this point due to the end of our field season.

Features

Eighteen distinct archaeological features were discovered during the excavation. The features are fully discussed in Appendix 1 and will be only briefly covered here. Five of these features (Features 557, 574, 595, 611 and 613) are associated with and continuation of features previously excavated in adjacent units.

Feature 557, running east-west, is on the southernmost edge of 240R110, and continues into 240R120 and 240R130. The feature is the footing ditch of a fence separating the gardens from the powder magazine area.

A wall ditch, Feature 540, runs east-west, and is located in the northern half of 230R110. The wall ditch, which separates Houses B and C from the garden areas, is continued in units 230R120 and 230R130.

Feature 595, which initially appears in Level 12 of 230R110, is charred, fragmentary wood from the superstructure of House B. The feature also appears in 220R110, 220R120, and 230R120.

The interior wall ditch, Feature 611, separates House B from House C. Running north-south, the feature continues in unit 220R110, and terminates in 210R110.

The final continuous feature, 613, is an earlier wall ditch separating Houses B and C. Located in 230R110, it is earlier than, and underlies Feature 611.

The remaining thirteen features were all initially found during the 1980 field season. Similarly, a brief explanation will be presented here with more complete discussion in Appendix 1.

Feature 613A is located in subunit fifteen of 230R110. It is a pit or post hole which cuts through Feature 595, the charred fragments of wood from the rebuilding of House B.

In subunit 12 of 230R110, a modern tree and root system was found. This feature, 720, began in the Sod/Sand layer and thus post-dates the 1933 disturbance.

Feature 721 was one of the more distinctive features found. Located in subunits 2, 3, 6 and 7 of 240R110, the British Puddling pit initially began in Level 6 at a datum depth of 0.67 feet. The feature was removed sui generis through datum depth 1.07 feet (Level 9). The pit contained pink and orange clay overlying a bottom of charcoal brush and large limestone rocks. The bottom charcoal layer formed a sharp contrast to the surrounding Brown Sandy Loam. The clay from the puddling pit may have been used as mortar to reinforce the palisade wall or similar area.

In unit 230R110, Feature 722 represents a modern pit. The pit underlies the 1933 disturbance, but cuts through

the undisturbed Brown Sandy Loam layer of the 1781 razing of Houses A, B and C.

Feature 723 is the fence footing ditch which separates the gardens of Houses B and C. The feature runs north-south in units 230R110 and 240R110, between Features 574 and 557.

A garbage, or refuse pit, Feature 724 underlies Feature 721 in 240R110. The pit contained many large bones, several of which lay over British Creamware and Delft Earthenware ceramics.

Similarly, Feature 725 is probably also a garbage or refuse pit. It underlies and was cut through by Feature 724.

The garden of House C is interspersed with trash pits. Feature 726, another refuse pit, underlies Feature 721 and probably Feature 724. Conversely, the pit probably overlies Feature 723.

Feature 727, a pit of undetermined function, cuts through Feature 557, the garden wall footing ditch. The wall (Feature 557) which surrounded the powder magazine was removed in 1779. Therefore, Feature 727 must post-date 1779.

A circular pit, Feature 728, is located in 230R110. This feature may be a refuse pit, but awaits complete excavation.

Feature 729, located in 240R110, may be a puddling pit similar to Feature 721. The pit of pink clay showed up directly under Feature 725. No diagnostic cultural material was found associated with this feature. It may be part of

Feature 725 which underlies and predates Feature 724, which contained British ceramics.

Feature 730 remains to be excavated. Located in both 230R110 and 240R110, it appears to be part of a stone walkway.

Feature 731 was only tested during the 1980 season. The feature appears to be a deep, wide footing ditch cut into by Feature 723, the fence ditch separating the gardens.

Due to the end of the field season, several of the features were not completely excavated. The features include 557, 574, 595, 611, 613, 613A, 723, 728, 730 and 731. More viable knowledge of the dates, cultural origin, and function of these features may be determined when these features are completely excavated.

Chapter V

ARCHITECTURAL FEATURES OF HOUSES B AND C
AND
THEIR ASSOCIATED GARDENS

As discussed in the previous chapter on Stratigraphy and Features, eight of the features excavated were structurally associated. Although much of the excavation area was disturbed by modern and colonial procedures, evidence was adequate to align the architectural features to both previous excavations and the 1749 Lotbiniere map.

Houses B and C lie north of the powder magazine, and constitute about three-tenths of the entire southeast row house. The southeast row house borders the northern edge of the "Rue de la Babilarde" which was a small street at Fort Michilimackinac. The Rue separates the southeast row house from the southernmost south-southeast row house. Houses B and C, like the other architecture within the reconstructed palisade on the southeast, date from the 1730s or earlier 1740s (Heldman 1977:20).

Analysis of the early structures is difficult due to the colonial rebuilding in the 1760s, and the complete razing of the fort in 1781. Additional difficulty was brought about by the 1933 disturbance. However, enough architectural evidence remained to delineate the house and gardens.

Little remained of the actual structures other than charred and fragmentary wood from House B (Feature 595), which dates to the mid-1760s rebuilding of the southeast row house. Feature 595 appears in Level 12 of 230R110. In Level 10 of 230R110, however, there were fragments of wooden floor boards from House C. These fragments were identified as Eastern White Pine (Pinus strobus) by Regis B. Miller of the Center for Wood Anatomy Research in Madison, Wisconsin (1980a).

The wall ditch of the southside south wall of Houses B and C, Feature 574, may have initially appeared in Level 6 of 230R110, between 0.9 and 1.0 feet, but since this area was badly disturbed, the feature was not distinct until Level 12 at a depth of 1.7 feet.

Feature 611, the inside wall ditch between Houses B and C did not appear as a distinct feature until Level 12, once again due to the vast disturbance in unit 230R110. An earlier interior wall ditch, Feature 613, adjacent to Feature 611, was evident at a datum depth of 1.9 feet in Level 13 of unit 230R110. Both Features 611 and 613 remain to be excavated.

Similarly, the fence footing ditch, Feature 723, separating the gardens of Houses B and C probably appears earlier (Level 8 at a depth of 1.20 feet in 230R110 and Level 10 at a depth of 1.17 feet in 240R110), but becomes distinct at Level 12 (1.70 feet) of unit 230R110, and at Level 14 (1.67 feet) of unit 240R110. Regis Miller identified wood found in Feature 723 as Northern White Cedar (Thierry occidentalis) (1980b).

The footing ditch of the wall that separated the garden area from the powder magazine, Feature 557, follows suit. Located at the very southern edge of unit 240R110, Feature 557 initially appears at a depth of 1.17 feet in Level 10. It is dissimilar to the previous architectural features in that it remains apparent and increases steadily in size through Level 14 where it is quite distinct.

None of the architectural features has been completely excavated, including the last two to be discussed. Feature 730 appears to be a stone walkway cutting through both units 230R110 and 240R110. Feature 731 is a wide footing ditch which appears at Level 12 (1.37 feet), and cuts through the center of the gardens. Archaeological testing indicated that the ditch is quite deep, but until it is excavated, its function remains unknown.

Chapter VI

ARTIFACT DESCRIPTION

Over 30,000 artifacts were recovered from the two units in and adjacent to Houses B and C during the 1980 field season. The identification of the artifacts followed the formal classification devised by Lyle Stone (1974). Additionally, ceramic identification was made following J. Jefferson Miller and Lyle Stone's classification (1970: 19-23). Both publications are site specific and have been used for artifact identification since the early 1970s. Because of their standard usage and applicability, other than general artifact descriptions will not be discussed.

Since many of the levels excavated were disturbed and contained a mixture of both French and British occupations, emphasis was placed on diagnostic artifacts during the analysis. Artifacts that would provide specific occupation determinations and time frame associations. This chapter will discuss general groups of artifacts, while Appendices 2 and 3 contain tabulations of specific artifact types in relation to the unit and level in which they were found.

Prehistoric Artifacts

A fragment of a bifacially worked flint point (arrowhead) was recovered in Level 5 of unit 230R110, and a probable matting needle made from bone in Level 14 of unit 240R110. The majority, however, of prehistoric artifacts found were severely weathered potsherds. The small, fragmentary sherds were mostly found in the lower levels of the excavation, but not in any archaeological context.

Modern Artifacts

Due to the vast disturbance in several areas of the excavation, modern artifacts appeared down to a depth of 1.2 feet in the northern end of unit 230R110. Although not as deep, other excavated areas displayed similar disturbances.

The modern artifacts recovered covered a wide spectrum. They included aluminum foil fragments, black rubber strips, a pencil lead, clinkers, a metal bottle cap and cellophane. Numerous fragments of amber beer bottle glass were prevalent throughout both units, but down to Level 8 (1.2 feet) in unit 230R110.

Colonial Ceramics

All of the ceramic types recovered during the 1980 field season had been previously defined by Miller and Stone (1970: 25-94). Their classification used three classes of ceramics: earthenware, stoneware and porcelain. Distribution of colonial ceramics by unit and level appears in Appendices 2

and 3. Therefore, only classes and quantities will be discussed here. A total of 939 ceramic fragments comprised three percent of all artifacts found.

Class A Earthenware

As defined by Miller and Stone (1970), Group I consists of tin-glazed earthenware. Included in this group were 34 fragments of blue and white Delft or Faience, 74 fragments of miscellaneous blue and white earthenware, 18 fragments of polychrome, 53 fragments of powdered blue or purple and 211 fragments of plain tin-glazed.

There were 99 fragments of Group II English cream-colored earthenware. Unlike the other groups of earthenware, the English creamware has no French counterpart and is specifically attributable to the British.

The final Groups of tin-glazed earthenware consist of Group III Coarse and Group IV Fine earthenware fragments. There were a total of 30 coarse and 12 fine earthenware fragments recovered.

Additionally, there were a total of 31 unidentified earthenware fragments. The majority of the unidentified fragments had been badly burned or were too small for specific identification.

Class B Stoneware

Group I contained assorted English white salt-glazed stoneware fragments. Plain white salt-glazed stoneware consisted of 133 fragments. There were eight plain white relief

decorated fragments, and nine fragments of either scratch blue or polychrome stoneware.

Group II includes Rhenish, Brown and Red stoneware. There were seven fragments of this group.

There were two unidentifiable fragments of stoneware. Similar to the earthenware, they were not identified because of being burned or too small.

Class C Porcelain

All porcelain fragments recovered were Group I, Chinese Export Porcelain. No evidence of Group II, English Porcelain, was present.

There were 40 fragments of plain white, 101 fragments of blue and white and 61 fragments of polychrome. Two fragments of the Group I porcelain were too small for specific identification.

White Kaolin, Micmac and Catlinite Pipes

The Kaolin or ball clay smoking pipe sample consisted of 340 fragments. The majority of the sample was from stem fragments although there was a small quantity of bowl and heel fragments. Only five fragments had maker's marks or decoration and none of the partial marks was identifiable.

Consideration was given to applying the Binford pipe stem formula and similar formulas. However, the majority of the stem fragment bore diameters were four-sixty-fourths (4/64) of an inch. The complete range of bore sizes differed so little that application of the formula was not warranted.

Additionally, most of the fragments were found in disturbed deposits which would have adversely affected the value of the formula.

Thirteen fragments of Micmac pipe bowls were recovered. Three of these bowls were marked with striated lines. Two fragments of Catlinite pipe bowls were also found. Both were plain with no decoration.

Lead Shot

A total of 1533 lead birdshot, buckshot, and bullets were found; five percent of the overall artifact count. The shot ranged in size from a small .06-inch caliber to a bullet-sized .68-inch caliber. The majority of the shot, however, was between .11-inch and .20-inch caliber. This range provided for 1394, or 91 percent of the total shot recovered. A tabulation of the shot by unit and level is available in Appendices 2 and 3.

Glass Seed Beads

Stone based his seed bead classification on method of manufacture, structure or form, size shape, color and surface characteristics (1974:88). Four levels of taxonomic differentiation were defined on the basis of the preceding attributes: the Class, Series, Type and Variety (Stone 1974:89).

Classes are based on method of manufacture, either hollow cane or mandrel wound. Series are based on the differences in structure. These consist of the presence or composition of one or more different layers of glass. Types are distinguished on the basis of combinations of shape

and surface characteristics. Variety distinctions are based on differences in glass color, the number, color and form of glass appliques, and on the degree of translucency (Stone 1974:89).

The 4920 seed beads found made up 16 percent of the total artifacts. The majority of the seed beads, 3913 or 80 percent of all seed beads, were of hollow cane manufacture (Class I), compound structure (Series B), two or three layers of glass (Types 1 and 3) and opaque white in color (Variety a). One type is doughnut-shaped (2943 beads) and the other is tubular-shaped (989 beads). The remaining seed beads, 19 percent, were primarily in Class I (980 beads). Class II made up less than one percent of the total (8 beads). The wide variety of seed bead types is illustrated by unit and level in Appendices 1 and 2.

There were no distinct differences in seed bead types attributable to either British or French occupation. They were characterized by association with both occupations and no specific clustering was evident.

European Trade Goods

In addition to the glass seed beads, other artifacts were associated with the trade industry. The trade goods identified and analyzed included rings, a trade cross, a glass pendant, tinkling cones, vermillion and necklace beads. All the artifacts may not specifically be associated with trade goods; for example, the glass pendant and necklace beads, but for purposes of the analysis were placed in the most probable or widely used category.

Seventeen different types of necklace beads were annotated, including one unidentified melted bead. A total of 25 necklace beads were recovered. Additionally, six ring bands, one glass pendant and one trade cross were found. Both tinkling cones and vermillion were prevalent in both excavated units. There were 17 tinkling cones and 51 fragments of vermillion.

Jewelry

Certain categories of jewelry may also have been used as trade items, but were primarily used by the colonial occupants of the fort. A limited number of jewelry artifacts were located during the 1980 excavations.

These artifacts included seven cufflinks, three rosary beads and two earring fragments. No cultural association may be made due to the quantity and position of the artifacts.

Belt Buckles

Of the six belt buckle fragments found, five were identified as separate categories. One was not identified.

All the categories identified were Class I, either Series A or B. Both series of buckles appeared late at the site, sometime around 1740 to 1780 (Stone 1974:35). Since this time frame overlapped both British and French occupations, no cultural or temporal associations may be made.

Buttons

A total of 29 whole or fragmentary buttons were located. Ten categories were observed including two buttons that could not be identified.

Two of the buttons could be specifically attributed to the British military. They were both buttons worn by the British King's Eighth Regiment which served at Fort Michilimackinac between 1774 and 1781 (Stone 1974:49).

Miscellaneous Metal

Only three bale seals were recovered during the field season. They were all unmarked and without attachments. The bale seals, used to seal and identify contents of goods, were present throughout the occupation history of the fort. Since they were not marked, no cultural or temporal attribution can be made.

Three fragments of metallic fabric were found. They were all plain-weave with multiple elements. Two could be specifically identified as Class I, Series A, Type 1 variety a. The third fragment was not identified. Additionally, one whole and one partial thimbles were found. Finally, a lead whizzer, which may be French, was recovered in a lower level.

Worked Bone

Eleven samples of worked bone were found during the 1980 excavation. Three of the artifacts were button backs, three

were buttons, one was a round stopper and the remainder were not identified.

The buttons and button backs were probably made at Fort Michilimackinac, but the time frame provided by Stone (1970:61), 1750 to 1780, includes both British and French occupation periods. Therefore, no cultural association can be made.

Chapter VII

CONCLUSION

As documented by the initial 1976 investigations, evidence disclosed both French British occupation within the southeast row house (Heldman 1977). In addition to the colonial occupation, artifacts recovered present evidence of both a modern and a prehistoric Indian presence. The modern and historic artifacts were all found in the more recent levels of demonstrated disturbance intermixed with the colonial deposits. The prehistoric artifacts were found scattered throughout the excavation. Neither group of artifacts was found in delineated archaeological context.

The most extensive excavations were conducted in the garden areas of Houses B and C of the southeast row house. The majority of House B, and portions of House C, had been previously excavated, although the southernmost area of each was included in the 1980 excavations. Houses B and C comprised nearly three-tenths of the six structures within the southeast row house. Historic documentation and archaeological evidence shows that the houses were initially built and occupied by the French.

When the British assumed control of the fort, the French continued to occupy the houses until the early 1760s (Heldman 1977). British soldiers were then billeted in the French structures. Later, the British rebuilt the houses.

The archaeological deposit features demonstrate these changes. Both the houses and garden areas contained British and French artifacts. Features showed that British fence and wall ditch intruded through the French ditches nearly obliterating all traces of the French occupation. Due to the final razing of the houses in 1781, none of the original structure remained and all interpretations were made from the existing fence and wall ditches.

As discussed in Chapters IV and V, modern and colonial disturbances of the area resulted in a mixture of several levels of occupation as well as features. The "smoothing-out" of the fort's surface in 1933 mixed modern artifacts primarily with British, but also with French. The British rebuilding of the house in the 1760s further complicated the levels by mixing British with French artifacts. As noted in Chapter V, specific features could normally be assigned to either the British or French occupation based on artifact content or intrusion through other features. However, disturbance made it difficult to assign specific cultural periods to specific levels in the overall excavation.

Since some of the features were not completely excavated, interpretation is not possible for all the features. They do, however, relate back to the original hypotheses.

Initially, it was postulated that in the British deposits, a portion of the charred and collapsed palisade, Feature 560, would be found. The feature was not found due to the vast disturbance in the upper levels of the excavation. Additionally, Feature 610, the interior joist sill in Houses B and C was not found. Probably also due to the disturbance. A door threshold leading from House C into the garden area was not found as thought possible in the hypotheses.

The remaining hypotheses concerning the architectural features were proved to be correct. The garden deposit was badly disturbed from both the 1781 razing and 1933 slip-scraping procedure. Portions of both the south wall of the houses, Feature 574, and the southernmost garden wall, Feature 557, were present. Feature 723, the footing ditch between the gardens was apparent in both units. British refuse pits were evident as was the collapsed superstructure of the houses.

The French deposits were similar in hypotheses results. As postulated, very little remained of the French deposit. The garden deposit from the rebuilding of the house was badly disturbed, but actual demolition refuse was not evident. Since the architectural features were not completed, no firm determination can be made at this time about either footing ditch. Similarly, results are not conclusive about French deposit refuse pits.

General observations may be made though based on artifact content. Artifact analysis for the cultural content of

House C provided similar results to that previously observed in Houses A and B, and supports the hypotheses devised in the initial research design.

Primarily, diagnostic artifacts were used in the cultural analysis, especially in attempting to separate British from French occupations. Historic documentation has illustrated the existence of the row house and the occupation of it by the French and, most likely, the British, but what about the actual people that lived in Houses B and C? Lotbiniere has provided names of occupants for the French period, and other historic information indicates that soldiers were probably quartered there during the British period. Little more is known.

Archaeological evidence is now available that supports the fact that the British soldiers occupied the dwelling. It also lends further light on the French occupants. As already established, British soldiers and earlier French traders occupied House B (Heldman 1977). Artifacts found in the garden areas of House C demonstrate that the occupation history was similar.

In view of the fact that some of the features were not completely excavated, functional interpretations are inconclusive. Therefore, it is more practical to discuss the relationship of the quantity and type of artifacts by level, rather than specifically by function.

In the uppermost levels of the excavation, which are thought to be British, there is a preponderence of artifacts

including military items such as buttons. The vast number of British artifacts compared to the quantity of French artifacts found indicates that the British occupants enjoyed a higher level of economic and, perhaps, social status than the French occupants. This is similar to the findings in Houses A and B (Heldman 1977). The lower levels, which are generally attributed to the French, produced fewer "status" artifacts and an abundance of trade artifacts which supports the idea that House C was occupied by a fur trader during the French period. Appendices 2 and 3 list the data by excavated levels.

Diagnostic artifacts, such as ceramics, illustrate the vast economic differences of the inhabitants. The upper levels contained a high proportion of British Creamware which has no French counterpart. In levels one through seven, 27 fragments of British Creamware were found, as opposed to 5 fragments in the lower six levels. Findings were similar for Houses A and B (Heldman 1977).

Additionally, a comparison may be made between English Delft and French Faience earthenware. The quantity of Delft earthenware far outweighed that of Faience. Forty-nine fragments of known Delft were found, compared to twenty-two fragments of known Faience.

Similar disproportionate ratios are apparent in the artifact tabulations in Appendices 2 and 3. Even though many of the levels were badly disturbed, evidence supporting the occupation by both British soldiers and French fur traders

is valid. Future investigation in the remaining unexcavated area of House C should only provide more evidence to substantiate the 1980 observations.

Site interpretation is paramount to the current purpose of Fort Michilimackinac. As a state park, the park serves the public as an interpretive facility for eighteenth century history. The primary purpose of the archaeological excavations is to allow for the reconstruction of the fort's history and structures.

Ongoing research at Fort Michilimackinac is the primary concern of the Mackinac Island Park Commission. Fortunately, the fort is not in any danger of impending damage or destruction, unlike numerous other significant archaeological sites. Time is on the side of the fort, and its preservation will continue to provide excellent opportunities for long term historical and archaeological research.

This report contributed to the goal of the park commission by making available the basic descriptive data on Houses B and C of the long term project of excavating the southeast row house. When the excavations are completed, the southeast row house will be reconstructed and will become a valuable interpretive facility for the public.

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APPENDICES

Appendix 1

Features excavated or tested archaeologically within units 230R110 and 240R110 in 1980 (Heldman 1980b).

Feature

- 557 Located in 450R110. A deep, wide footing ditch of a wall or palisade which, after about 1768, separated the gardens of the southeast row house from the powder magazine property. Probably this ditch, as found and partially excavated in 1980, is the remain of the British expansion of the powder magazine enclosure into what formerly has been the lane between the southeast and the south southeast row houses.
- 574 Located in 230R110. The wall ditch of the outside wall of Houses B and C of the southeast row house. The ditch separates the rowhouse from the garden area and dates to the mid-1760s' rebuilding of these houses.
- 595 Located in 230R110. Charred and fragmentary wood of the superstructure of House B dating to the mid-1760s' rebuilding of that House. Originally (Heldman 1977:24) this feature was thought to be part of the final demolition of the southeast row house, but now is known to date earlier, to the 1760s' rebuilding. The feature overlies Feature 578.
- 611 Located in 230R110. An interior wall ditch and posts separating Houses B and C of the southeast row house. The feature dates to the mid-1760s' rebuilding of the southeast row house, and thus in early British.
- 613 Located in 230R110. An interior wall ditch separating Houses B and C of the southeast row house. It pre-dates Feature 611, which is excavated through it, and hence dates to French occupation (1730s-1761).
- 613A Located in 230R110, Level 13, Subunits #15 and 16. A pit or post-hole cut through Feature 595. The feature thus dates sometime during British occupation, perhaps in the late 1760s.
- 720 Located in 230R110, Subunit #12. A tree and root system. The surviving tree is a modern disturbance which begins in the Sod/Sand layer. It thus post-dates the Black Sandy Loam (1933) layer.

Appendix 1

Features excavated or tested archaeologically within units 230R110 and 240R110 in 1980 (Heldman 1980b).

Feature

- 721 Located in 240R110, Subunits #23, 6 and 7. A late British puddling pit (1774-1781). It consists of pink and orange clay overlying a pit bottom filled with charred brush and carefully placed large limestone rocks. The charred layer forms a distinct black outline to the puddling pit, and it contrasts with the surrounding Brown Sandy Loam. The pit begins in Level 6 at a datum depth of 0.67 feet.
- 722 Located in 230R110, Levels 5 and 6, Subunit #16. A late nineteenth or early twentieth century pit. This modern disturbance is overlain with the Black Sandy Loam layer (1933), but cuts through the Brown Sandy Loam layer of the 1781 razing of Houses A, B, and C of the southeast row house. Hence, this pit dates sometime between 1781 and 1933.
- 723 Located in 230R110 and 240R110. A fence footing ditch of the garden fence separating the gardens of Houses B and C of the southeast row house. It runs north-south from the row house (Feature 574) to the fence or palisade (Feature 557) on the south. This fence ditch became clear in Level 6 in 230R110 and in Level 10 in 240R110. Its fill consists of redeposited Brown Sandy Loam, and hence dates sometime to British occupation, perhaps the 1760s.
- 724 Located in 240R110, Level 10 downward, Subunits #6, 7, 9 and 10. A garbage or refuse pit in the garden of House C of the southeast row house. Its fill consists of Brown-Grey Loam and underlies Feature 721. It may date to the early British occupation of House C.
- 725 Located in 240R110, Level 13, Subunit #5. Probably a trash or refuse pit cut through by Feature 724. This earlier feature's fill consists of a Dark Humic soil.
- 726 Located in 240R110, Level 13, Subunit #6. A refuse pit in the garden of House C of the southeast row house. This pit underlies Feature 721, and perhaps Feature 724 as well. However, it probably overlies Feature 723.
- 727 Located in 240R110, Level 13, Subunit #1. A pit of an undetermined function which cuts through the Light

Appendix 1

Features excavated or tested archaeologically within units 230R110 and 240R110 in 1980 (Heldman 1980b).

Feature

- 727 (contd) Brown Sandy Loam fill of Feature 557. Feature 557, the substantial wall or palisade ditch surrounding the powder magazine property and dating from about 1768, probably was removed in 1779. Because this pit (Feature 727) cuts through it, it must date to 1779 or later.
- 728 Located in 230R110, Subunit #1. A circular pit mostly in subunit #1. Its fill consists of Mottled Grey-Brown Sand, and was not excavated in 1980. Its function, cultural origin, and date remain unknown.
- 729 Located in 240R110, Level 15, Subunit #5. A circular pit filled with pink clay and probably a clay puddling pit in the garden of House C of the southeast row house. It may be part of Feature 725 which lies immediately above it.
- 730 Located in 230R110 and 240R110. Apparently, this is the remains of a stone walkway of some kind. It extends from the extreme southwest corner of House B or the southeast row house south, and then abruptly east (in 230R110 to 240R110 to 240R120). Perhaps a door existed in the south wall (Feature 574) of House B leading to this walkway. Along its southern edge (in 230R110) is a strip of pink clay, possibly the remains of a revetment of some kind. It probably dates to British use of House B (see Heldman 1977: Map 3A on page 259).
- 731 Located in 240R110. A wide, deep footing ditch. It begins in Level 12, but did not become clear until Level 16. It contains a high proportion of beach gravel with Grey-Brown Sand. It is approximately two feet in width, and extends through the length (east-west) of the square. Feature 723, the ditch separating the gardens of Houses B and C, cuts into this footing ditch. The function of the larger and earlier ditch is unknown, although a test of it revealed it is deep, its bottom was not reached. The entire feature remains to be excavated, therefore date, cultural origin, and function are unknown.

Unit 230R110 Artifact Description and Quantities by Level

Colonial Ceramics	Levels	1	2	3	4a	4b	5	6	7	8	9	10	11	12	13	Total
<u>Earthenware</u>																
Tin-glazed earthenware	1	17	4	17	23	8	2	4	8	3	7	13	10	117		
Misc. Blue & White	1	3	1	6	9	1	1	10	5	4	3	4	2	49		
Blue & White Delft	1	9	1	3	4	1	1	2	1					22		
Blue & White Faience	1	1	1	2	1	2	1							3		
Polychrome	1	1	1	2	1	4	2	1						1	1	11
Powdered Blue or Purple	1	3	3	8	4	2	4	2	2	3	3	3	1	31		
Coarse														10		
Fine														6		
Cream-colored earthenware	1	2	7	6	2	5	4	2	1	1	1	1	1	32		
Unidentified														31		
<u>Stoneware</u>																
White Salt Glaze	10	4	8	12	8	4	5	3	3	3	3	1	2	63		
White Salt Glaze																
Relief Decorated														1	1	2
Scratch Blue & Polychrome	1	1	3	1	3	3	1	1	1	1	1	1	1	4		
Rhenish, Brown or Red	1	1	1	1	3	3	3	3	3	3	3	3	3	4		
Unidentified														9		
<u>Chinese Export Porcelain</u>																
Misc. White	2	1	1	2	1	3	4	3	3	2	1	2	2	25		
Blue & White	3	9	3	6	3	4	5	3	3	5	3	5	4	56		
Polychrome	1	5	5	5	5	3	6	2	3	2	3	2	3	35		
Unidentified	2													2		
														512	50	

Appendix 2

Unit 230R110 Artifact Descriptions and Quantities by Level

Lead	Shot	Levels	1	2	3	4a	4b	5	6	7	8	9	10	11	12	13	Total
.06"	Caliber	2															2
.07"	Caliber															1	14
.08"	Caliber	4															18
.09"	Caliber																5
.10"	Caliber																45
.11"	Caliber	2															35
.12"	Caliber	1															35
.13"	Caliber	5	10	1	9	16	16	26	35	17	6	6	9	9	3	159	
.14"	Caliber	9	1	7	10	10	10	21	70	12	8	8	9	9	3	168	
.15"	Caliber	2				2			11	1	7	6	6	6	2	37	
.16"	Caliber	1	4	3	9	6	8	16	31	12	21	5	13	5	134		
.17"	Caliber	6	1	7	5	17	13	16	5	13	1	8	5	5	97		
.18"	Caliber				2			6	1		2	2	2	6	19	19	
.19"	Caliber	5	19	2	10	16	14	18	28	8	5	4	7	7	136		
.20"	Caliber	2				2		2	15	7	3	5	14	6	1	46	
.21"	Caliber														1	4	
.22"	Caliber	1	2			1	1	2		3	1					1	
.23"	Caliber											1				5	
.24"	Caliber															4	
.25"	Caliber															1	
.26"	Caliber															1	
.27"	Caliber															3	
.28"	Caliber															1	
.30"	Caliber															1	
.31"	Caliber											1				1	
.33"	Caliber											1				1	
.46"	Caliber											1				1	
.56"	Caliber											2				2	
.57"	Caliber											1				1	
.68"	Caliber											1				1	

Appendix 2

Unit 230R110 Artifact Description and Quantities by Level

Levels	1	2	3	4a	4b	5	6	7	8	9	10	11	12	13	Total
<u>Glass Seed Beads</u>															
CT SB T1 Va	1	13	131	16	91	160	152	167	299	204	209	270	269	124	2106
CT SB T2 Va		3	1				2	3	1	3	1	1	2		17
CT SB T3 Va	72	8	39	37	46	71	90	122	67	82	82	50	50		766
CT SA T1 Va	4	2	6	10	1	4	12	7	4	9	10	2			71
CT SA T1 Vb									1	6					7
CT SA T1 Vc									4	4	4	9	3		21
CT SA T1 Vd															3
CT SA T1 Ve	6	4	11	5	7	17	7	1	1	1	1				62
CT SA T1 Vf		1	4	4	6	11	2	1		2	6				37
CT SA T1 Vg				2											2
CT SA T1 Vi	4	5	2	8	3	4			3	3	9	4			45
CT SA T1 Vj									1						1
CT SA T1 Vm															1
CT SA T1 Vn	3	10	3	11	12	7	7	6	13	17	17	25	6		137
CT SA T1 Vo						1	1	2		5	2	3			3
CT SA T1 Vp									1	1	1				4
CT SA T1 Vs											1				1
CT SA T1 Vt												1	2		3
CT SA T1 W															
CT SA T1 Wy															
CT SA T2 Va	1	5	1	1	7	8	21	7	5	9	15	12	5		96
CT SA T2 Vb		2	1			3			1	3	1	1			13
CT SA T2 Vc		9	2	8	3	6	7	18	7	7	3	6	1		77
CT SA T3 Va									1						1
CT SA T3 Vb	5	1	4	5	5	6	3	3	2	1	3				38

Appendix 2

Unit 230R110 Artifact Description and Quantities by Level

Class	Seed Beads	Levels	1	2	3	4a	4b	5	6	7	8	9	10	11	12	13	Total
	(Contd)																
CI	SA T4 Vb				1	1	1		2	1	4	2	1			13	
CI	SA T1 Vc				1				1							3	
CI	SA T1 Vd				1											1	
CI	SA T1 Vi								1	1						3	
	Unidentified										1					6	
																	3558

Trade Goods

Necklace Beads

CI	SA T1 Va	1														1	
CI	SA T1 Vc															1	
CI	SA T1 Vp															1	
CI	SA T2 Va															1	
CI	SA T3 Va															1	
CI	SA T9 Vc															1	
CI	SB T3 Va															1	
CI	SC T1 Va															1	
CI	SD T2 Va															1	
CI	SA T1 Ve															2	
CI	SA T8 Va															2	
CI	SC T1 Vf															1	

Ring Bands
Marked
Unmarked

Marked	1
Unmarked	1

Appendix 2

Unit 230R110 Artifact Description and Quantities by Level

	Levels	1	2	3	4a	4b	5	6	7	8	9	10	11	12	13	Total
<u>Trade Goods</u>																
(Cont'd)																
Tinkling Cones							2	2	1	1		2	1			8
Vermillion							2	1	1	5	3	6	2	1	1	24
																48
<u>Jewelry</u>																
Cufflinks												1				1
CTV SA T1 Va																2
CTV SA T2 Va																
Earring										1	1					2
																5
<u>Buttons</u>																
King's 8th CI SD T1 Va								1		1	1					4
CTI SA T1 Va										2						2
CTI SB T1 Va											1					3
CTI SB T1 Vg																1
CTI SD T1 Va									1							1
CTII SA T1 Va												1				1
Unidentified										2	1					3
																15

Appendix 2

Unit 230R110 Artifact Description and Quantities by Level

Appendix 2

Unit 230R110 Artifact Description and Quantities by Level

Appendix 3

Unit 240R110 Artifact Descriptions and Quantities by Level

Levels	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total
<u>Colonial Ceramics</u>																
<u>Earthenware</u>																
Tin-glazed	2	3	9	20	10	7	10	19	6	2	1	3		2		94
Misc. Blue/White	1	5	2	1	1	6	2	4	2	1						25
B/W Delft		3			2	1	1		1			1		1		3
B/W Faience																6
Polychrome		1	2	2	1	3	3	2	4	1	2					7
B/W Powdered		2	2	2	2	4	4	1	1	1	1					21
Coarse	1	3	2	2	2	4	4	1	1	1	1					20
Fine	1	1	5	16	5	4	4	6	12	7	1	1				6
Cream-colored	2	5	5	16	5	4	4	6	12	7	1	1				67
Unidentified						1	1		1		1		2			6
<u>Stoneware</u>																
White Salt Glaze	1	2	14	11	3	9	4	12	3	4	1	2	3	1		70
WSG/Relief Dec.		2	2					1								6
SB/Poly		1	3					1								5
Rhenish/B-R	1															3
Unidentified											1					1
<u>Chinese Export Porc.</u>																
Misc. White	1	1	6	2		5	5	11	6	2						15
Blue & White	1	2	3	5		1	2	4	7	1	1	2	1	1		45
Polychrome		2	1	3	1											26
Unidentified																

Appendix 3

Unit 240R110 Artifact Descriptions and Quantities by Level

Lead	Shot	Levels														Total
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	
.06"	Caliber	1								1	1	1	1	1	1	4
.07"	Caliber															9
.08"	Caliber	2	2													21
.09"	Caliber	6	3	1	2	3	3	4	2	3	2	1				32
.10"	Caliber	2	8	2	6	6	10	2	1	5	4	1	4	2		79
.11"	Caliber	1	14	15	8	6	6	10	2	1	5	4	1	4		73
.12"	Caliber	8	12	4	13	10	6	6	6	6	4	1	3	1	1	83
.13"	Caliber	1	7	15	5	7	13	16	4	4	5	4	1	1		37
.14"	Caliber	2	5	3	1	8	2	2	2	3	5	1	2	1		84
.15"	Caliber	1	10	14	3	8	11	12	9	5	3	2	4	1	1	54
.16"	Caliber	9	11	7	5	10	5	10	6	3	1	5	3	1	1	36
.17"	Caliber	3	4	3	2	4	4	3	2	2	4	3	2	1		19
.18"	Caliber	1	2	3	1	2	4	5	2	1	1	1	2	2	1	21
.19"	Caliber	1	2	3	1	2	4	5	2	1	1	1	1	1	1	9
.20"	Caliber	1	2	4	1	3	3	3	2	1	1	1	2	1	2	2
.21"	Caliber	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
.22"	Caliber															1
.23"	Caliber															2
.24"	Caliber															1
.25"	Caliber															
.26"	Caliber															
.27"	Caliber															
.28"	Caliber															
.30"	Caliber															
.31"	Caliber															
.32"	Caliber															
.33"	Caliber															1

Appendix 3

Unit 240R110 Artifact Descriptions and Quantities by Level

Levels	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total
Lead Shot (Contd)																1
.34" Caliber																1
.46" Caliber																1
.52" Caliber																1
.56" Caliber																2
.57" Caliber																1
.60" Caliber																1
.61" Caliber																1
.68" Caliber																1

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Appendix 3

Unit 240R110 Artifact Descriptions and Quantities by Level

Glass	Seed	Beads	Levels															Total	
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15		
CI	SB	T1	Va	2	17	94	96	50	72	90	75	69	52	48	42	26	60	44	837
CI	SB	T2	Va			1	1			1		1	1						5
CI	SB	T3	Va	4	20	36	20	16	21	29	28	19	12	8	4	1	5		223
CI	SA	T1	Va			6	1		4	6	5	2	2	1	2				28
CI	SA	T1	Vb			1			1										2
CI	SA	T1	Vc			1	2		1	2	1	5	5	1	1	1	3		25
CI	SA	T1	Vd						1									1	
CI	SA	T1	Ve																
CI	SA	T1	Vf																
CI	SA	T1	Vg					1											
CI	SA	T1	Vi					4	2	2	2		1	1	1	2	1	1	
CI	SA	T1	Vj																
CI	SA	T1	Vm									3	1		1	2			
CI	SA	T1	Vn																
CI	SA	T1	Vo																
CI	SA	T1	Vp	3	16	15	6	6	2	9	6	5	4	4	4	1	3	2	81
CI	SA	T1	Vs																
CI	SA	T1	Vt																
CI	SA	T1	Vv																
CI	SA	T1	Vw																
CI	SA	T1	Vy																
CI	SA	T2	Va			4	2	2	1	4	2		2		1	1	4	10	30
CI	SA	T2	Vb			1	1		2	1	1		1						8
CI	SA	T2	Vc			2	10	3	2	4	4	5	5	1	2	1		40	
CI	SA	T3	Va			1			1		1		1					1	
CI	SA	T3	Vb			1	5	5	1	2	4	2	3					3	
CI	SA	T4	Va															2	
																		23	

Appendix 3

Unit 240R110 Artifact Descriptions and Quantities by Level

Levels	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total

Glass Seed Beads
(Contd)

CI SA T4 Vb	3															4
CII SA T1 Vc																1
CII SA T1 Vd																1
CII SA T1 Vi																
Unidentified																10

10

1362

Appendix 3

Unit 240R110 Artifact Descriptions and Quantities by Level

Trade Goods	Levels	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total
Necklace Beads																	
CI SA T1 Vb									1								1
CI SA T1 Vc										1							1
CI SA T2 Va											1						1
CI SA T3 Va											1						1
CI SA T5 Vf											1						1
CI SA T6 Ve											1						1
CI SD T2 Va											3						2
CII SC T1 Vf											1						3
Unidentified												1					1
Ring Bands																	
Marked									1								2
Glass Pendent																	
Cross										1							1
Tinkling Cones																	
	1								2		2			1	1	1	9
Vermillion																	
	2								6		1	4		6	2	6	27
Jewelry																	
Cufflinks																	
CVI SA T2 Vf															2		2
Unidentified												1		2			4

Appendix 3

Unit 240R110 Artifact Descriptions and Quantities by Level

Levels	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total
Jewelry																
Rosary Beads																
SA T3 medium	1															2
Unidentified																1
																9
Buttons																
King's 8th CI SD T1 Va									1							1
CI SA T4 Va																2
CII SA T1 Va								2								4
CII SB T4 Va																2
CIV SB -- --																1
CV SA T1 Va								1								1
Unidentified												1	1			3
																14
Belt Buckles																
Cat. 1 SB T1 Va																1
Cat. 1 SB Cat. 1 Vg																1
Unidentified																1
																3

Appendix 3

Unit 240R110 Artifact Descriptions and Quantities by Level

Levels	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total
<u>Miscellaneous Metal</u>																

Metallic Fabric	1	1														2
CI SA Tl Va																
Thimble							1									1

																3
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	---

Prehistoric

Bone Matting Needle															1	1
Probable Edge Scraper															1	1
Weathered Pottery															2	3
Fragments															4	40

																42
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	----

Micmac Smoking Pipes

Marked Bowl															1	
Fragments															2	
Unmarked Bowl																
Fragments															1	5

																7
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Appendix 3

Unit 240R110 Artifact Descriptions and Quantities by Level

Catlinite Smoking Pipes

Unmarked Bowl Fragments	1
<u>Worked Bone</u>	
Button Back	1
CRV Cat. 1 Va	2
Button	1
Round Stopper	1